

Selected Works at the National Agricultural Library by Authors Influential to Nikolai Vavilov

Published Works by Mentors of Vavilov

William Bateson. *Mendel's Principles of Heredity*. Cambridge: University Press, 1913.

Bateson, a British geneticist (1861-1926), was the first person to use the term genetics to describe the study and heredity of biological inheritance. Bateson was an early proponent of Gregor Mendel's (commonly known as the father of genetics) work and mentor to Vavilov. Vavilov nominated Bateson for membership in the Russian Academy of Science.

Thomas Hunt Morgan. *Evolution and Genetics*. Princeton: Princeton University Press, 1925.

A prominent American geneticist who worked with fruit flies, Morgan confirmed genes are carried on chromosomes and are the basis of heredity. This discovery formed the foundation for the modern science of genetics. Vavilov nominated Morgan for membership into the Russian Academy of Science.

_____. *The Theory of the Gene*. New Haven: Yale University Press, 1926.

Published Works by Colleagues of Vavilov

Theodosius Dobzhansky. *Genetics and the Origin of Species*. New York: Columbia University Press, 1937.

Dobzhansky was a noted geneticist and evolutionary biologist who was credited with taking the research out of the laboratory and "into the field." Dobzhansky was born in Ukraine (then part of Imperial Russia) and emigrated to the United States in 1927. Vavilov met with Dobzhansky on his 1932 trip to California on which Vavilov unsuccessfully tried to convince Dobzhansky to return to Russia. *Genetics and the Origin of Species* is one of the major works of the modern evolutionary synthesis.

Georgy Karpechenko. *Izbrannye trudy*. Moskva: Nauka, 1971.

Karpechenko was one of the leading geneticists in Russia in the 1930s. He was head of the Department of Genetics at the Institute of Plant Industry. Karpenchenko, like Vavilov, was arrested in 1941. He was later executed in prison.

Harry Harlan. *Yields of Barley in the United States and Canada 1922-1926.* Technical Bulletin, no 96. Washington, D.C.: U.S. Department of Agriculture, 1929.

Harlan was an American plant breeder and close friend to Vavilov. Vavilov sent a coded message warning Harlan's son not to come to Russia.

Published Works Political Influences

Vladimir I. Lenin. *Capitalism and Agriculture.* New York: International Publishers, 1946.

Lenin was one of the leading political figures and revolutionary thinkers of the 20th century. He organized the Bolshevik take-over of power in Russia in 1917, and was the architect and first head of the Soviet state. From 1919 to 1921 famine spread throughout Russia and left over 27 million people dead. To alleviate suffering, Lenin put into effect the New Economic Plan. This plan embraced some capital ideas (limited private industry) in order to revitalize the flagging economy.

Trofim Lysenko. *Teopetnyeckne Ochobbi Rprobneiinn.* Leningrad, 1935.

Lysenko was a poorly educated "barefoot scientist" who embraced Lamarckian principles. These principles claimed that environmental influence alters plant properties in such a way that they can be passed on to offspring. The attraction of this theory was the purported ability to create new high yielding-varieties in two to three years, rather than the typical 10 to 12 years needed through traditional breeding practices. Vavilov criticized the non-Mendelian concepts of Lysenko. Stalin, however, supported Lysenko's theories. Vavilov was arrested in August 1943, and died of malnutrition in prison that same year.